

UNCLASSIFIED SAMI 8402016  
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# USE AND FUNDING OF PEACETIME AIRLIFT CARGO CAPACITY

30 AUGUST 1984

A study of ways to use and fund unsubscribed peacetime airlift capacity  
generated as a by-product of readiness training

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Slide 1: "Use and Funding of Peacetime Airlift Cargo Capacity"

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OUR STRATEGIC AIRLIFT FLEET EXISTS TO MEET THE WARTIME AIRLIFT REQUIREMENT. IN PEACETIME, MAC AIRCRAFT FLY IN ORDER TO MAINTAIN THE READINESS OF ALL OF THE COMPONENTS OF THE AIRLIFT SYSTEM. PILOT TRAINING REQUIREMENTS, COMMONLY MEASURED IN FLYING HOURS, ARE THE DRIVING READINESS REQUIREMENTS. WHILE FLYING CARGO AIRCRAFT FOR READINESS TRAINING, MAC GENERATES WHAT IS CALLED BY-PRODUCT CARGO CAPACITY. SIMPLY STATED, MAC CAN HAUL CARGO IN THE BACK OF THE PLANES WHILE THE PILOT AND THE REST OF THE AIRLIFT SYSTEM COMPLETE REQUIRED TRAINING EVENTS.

WHEN 50 NEW C-5S JOIN THE STRATEGIC AIRLIFT FLEET STARTING IN FY86, THE BY-PRODUCT CAPACITY IS PROJECTED TO SIGNIFICANTLY EXPAND. BY FY 90, 21% OF THE PEACETIME BY-PRODUCT CARGO CAPACITY IS PROJECTED TO BE UNSUBSCRIBED BY USERS. THE AIRLIFT SERVICES INDUSTRIAL FUND MAY NOT BE ABLE TO PAY FOR AIRLIFT OPERATING EXPENSES, AND WOULD HAVE TO BE FURTHER SUBSIDIZED BY AIR FORCE O & M FUNDS. THIS STUDY EXAMINES THE SIGNIFICANCE OF THE USE AND FUNDING OF PEACETIME AIRLIFT CARGO CAPACITY.

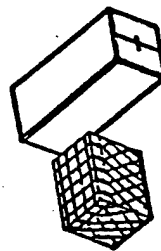
KEEP IN MIND THAT THE FOCUS OF THIS STUDY IS BASED ON THE BY-PRODUCT CARGO CAPACITY PRODUCED AS A RESULT OF PEACETIME FLYING HOUR PROGRAMS DERIVED TO PROVIDE READINESS TRAINING FOR THE AIRLIFT SYSTEM. THIS SHOULD NOT BE CONFUSED WITH WARTIME CARGO REQUIREMENTS. THERE IS A DEFINITE SHORTAGE OF WARTIME AIRLIFT CAPACITY AND AIRLIFT ENHANCEMENTS ARE CURRENTLY PROGRAMMED TO CORRECT THESE WARTIME SHORTFALLS.

# **BRIEFING OVERVIEW**

## **TASKING FROM SAF/ALD:**

TAKÉ A COMPREHENSIVE, OBJECTIVE LOOK AT THE AIRLIFT READINESS PROGRAM TO INCLUDE RECOMMENDATIONS FOR USES OF BY-PRODUCT CAPACITY AND FINANCING.

<u>AREA</u>	<u>BASIC ISSUE</u>	ANSWER
AIRLIFT READINESS PROGRAM	ARE THERE VALID REASONS TO MODIFY THE AIRLIFT READINESS TRAINING PROGRAM	NO
FINANCING AIRLIFT SERVICES	IS THE AIRLIFT SERVICES INDUSTRIAL FUND WORKING AS AN AIRLIFT ALLOCATOR?	YES
USES OF BY-PRODUCT CAPACITY	DO OPTIONS EXIST FOR INCREASED USE OF BY-PRODUCT CAPACITY?	YES



2000 0000 0000

Slide 2: "Briefing Overview"

AWARE OF THESE POTENTIAL DIFFICULTIES IN OPTIMALLY USING PEACETIME AIRLIFT, THE PRINCIPAL DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE FOR RESEARCH, DEVELOPMENT, AND LOGISTICS (SAF/ALD) ASKED US TO EXAMINE THE AIRLIFT READINESS PROGRAM TO INCLUDE ALTERNATIVE USES OF BY-PRODUCT CAPACITY AND FINANCING.

WE FOCUSED ON SEVERAL BASIC ISSUES DURING OUR STUDY:

● WE EXAMINED THE CURRENT AIRLIFT READINESS TRAINING PROGRAM TO DETERMINE IF IT IS ADEQUATELY EXERCISING THE AIRLIFT SYSTEM. WE FOUND THAT THE CURRENT AIRLIFT READINESS TRAINING PROGRAM IS ADEQUATELY EXERCISING THE AIRLIFT SYSTEM.

● WE STUDIED FUNDING ISSUES, INCLUDING TARIFF INCENTIVES, THE VALUE OF THE ASIF, AND WHETHER THE ASIF SHOULD BE SUBSIDIZED. WE FOUND THAT THE ASIF IS WORKING AS AN AIRLIFT ALLOCATOR.

● FINALLY, WE FOUND OPTIONS DO EXIST FOR INCREASED USE OF BY-PRODUCT CAPACITY. WE DEVELOPED 12 WAYS TO USE BY-PRODUCT AIRLIFT CAPACITY, BY SUGGESTING NEW CARGO FOR MAC TO CARRY OR BY SUGGESTING NEW REQUIREMENTS MAC MIGHT MEET.

SUBSEQUENT SLIDES WILL USE ONE OF THE THREE SYMBOLS SHOWN HERE TO IDENTIFY THE SPECIFIC AREA BEING DISCUSSED--  
THE AIRLIFT READINESS PROGRAM, THE ASIF, OR ALTERNATIVE USES OF BY-PRODUCT CARGO CAPACITY.



Slide 3: "Major Milestones"

WE FOCUSED ON THREE KEY QUESTIONS AND CONSULTED OVER 100 SPECIALISTS DURING THE COURSE OF OUR NINE-MONTH STUDY. WE DISCOVERED OUR ANALYSIS PARALLELED SIMILAR WORK DONE BY THE AIR STAFF, THE MAC STAFF, THE ARMY, AND THE AIR FORCE HUMAN RESOURCES LABORATORY.

OUR FINAL REPORT HIGHLIGHTS OUR INTERFACE WITH THESE OTHER AGENCIES. WHILE WE ARE IN GENERAL AGREEMENT WITH THESE AGENCIES, WE OFFER DIFFERENT ALTERNATIVES TO SOME ISSUES. I'LL DISCUSS THOSE DIFFERENCES LATER IN MY BRIEFING.

## SCOPE

### THIS STUDY WILL

- DESCRIBE MAC's AIRLIFT READINESS TRAINING PROGRAM, BASED ON CURRENT FYDP PROJECTIONS
- DESCRIBE HOW THE AIRLIFT SERVICES INDUSTRIAL FUND ALLOCATES AIRLIFT BY-PRODUCT CARGO CAPACITY
- EXAMINE THE IMPACT OF SEVERAL BROAD ALTERNATIVES FOR ATTRACTING MORE AIR CARGO

### THIS STUDY WILL NOT

- VALIDATE THE MINIMUM NUMBER OF FLYING HOURS REQUIRED FOR AIRLIFT TRAINING OR LINK FLYING HOURS TO PROFICIENCY
- PERFORM AN ECONOMIC ANALYSIS OF THE ASIF
- RECOMMEND OPTIMUM WAYS TO USE BY-PRODUCT CAPACITY

Slide 4: "Scope"

FIRST, A WORD ABOUT THE LIMITED SCOPE OF THIS STUDY. FROM THE OUTSET, THIS STUDY WAS INTENDED TO BE A QUALITATIVE ASSESSMENT OF THREE LARGE-SCALE ISSUES. IT WILL NOT QUANTIFY WITHIN TRADITIONAL ANALYTICAL FRAMEWORKS THE RIGHT OR WRONG ANSWERS.

THIS STUDY WILL:

- (1) DESCRIBE MAC'S AIRLIFT READINESS PROGRAM,
- (2) DESCRIBE HOW THE ASIF SERVES AS A MECHANISM FOR ALLOCATING OUR AIRLIFT RESOURCES,
- (3) EXAMINE THE IMPACT OF SEVERAL BROAD ALTERNATIVES FOR ATTRACTING MORE AIRLIFT CARGO INTO THE AIRLIFT SYSTEM.

THIS SLIDE ALSO SHOWS THE ISSUES THAT THIS STUDY WILL NOT QUANTIFY. THIS STUDY WILL NOT:

- (1) VALIDATE THE MINIMUM NUMBER OF FLYING HOURS REQUIRED FOR AIRLIFT READINESS. TRAINING OR LINK FLYING HOURS TO PROFICIENCY.
- (2) PERFORM AN ECONOMIC ANALYSIS OF THE ASIF TO DETERMINE IF IT IS THE BEST SYSTEM FOR FUNDING THE AIRLIFT READINESS TRAINING PROGRAM. EVEN THOUGH THIS BRIEFING DOES NOT CONTAIN RECOMMENDED CHANGES TO IMPROVE THE ASIF, WE REMAINED ALERT TO NEW OR BETTER WAYS OF ALLOCATING BY-PRODUCT CARGO CAPACITY AND FUNDING THE AIRLIFT READINESS PROGRAM AS WE CONDUCTED OUR FIELD RESEARCH.
- (3) RECOMMEND OPTIMUM WAYS TO USE THE BY-PRODUCT CARGO CAPACITY.



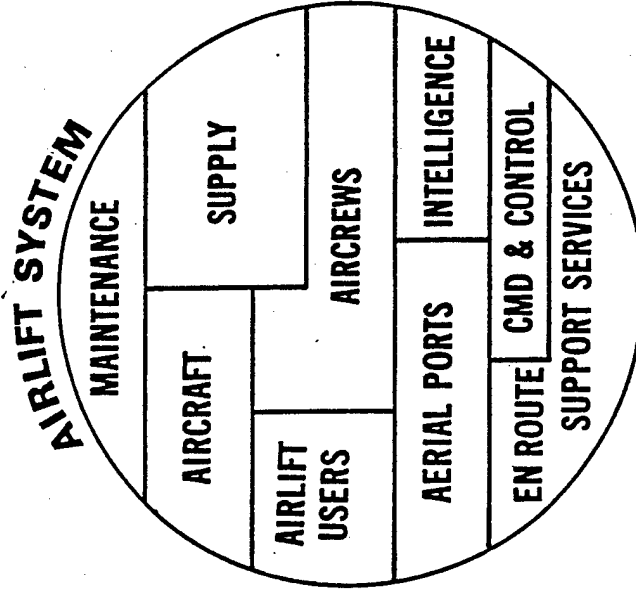
**MISSION: WARTIME**

MAC'S PRIMARY MISSION IS TO PROVIDE THE AIRLIFT NECESSARY FOR THE WARTIME DEPLOYMENT OF BALANCED FIGHTING FORCES, AND TO PROVIDE SUSTAINING LOGISTICAL SUPPORT FOR THOSE FIGHTING FORCES

**MISSION: PEACETIME**

MAC'S MISSION IS TO:

- MAINTAIN IN BEING A WAR READY AIRLIFT CAPABILITY
- PROVIDE ECONOMIC AIRLIFT GENERATED FROM AIRLIFT TRAINING



Slide 5: "MAC'S Mission During Peacetime ... Airlift Readiness"

THE MILITARY AIRLIFT COMMAND (MAC) HAS AN OVERALL MISSION TO MAINTAIN THE MILITARY AIRLIFT SYSTEM IN A CONSTANT STATE OF READINESS IN ORDER TO ACCOMPLISH AIRLIFT SUPPORT TO THE UNIFIED COMMANDERS. AS A SPECIFIED COMMAND, MAC IS RESPONSIBLE FOR FORCE PROJECTION THROUGHOUT THE WORLD WHEN DIRECTED BY THE NATIONAL COMMAND AUTHORITY. IN THE EVENT OF A WAR, OUR AIRLIFT SYSTEM MUST BE READY TO RESPOND TO REQUIREMENTS THROUGHOUT THE WORLD. WHEN CONSIDERING THE READINESS OF THE AIRLIFT SYSTEM, MAC BREAKS THE AIRLIFT SYSTEM INTO SEVERAL INTERDEPENDENT COMPONENTS. AIRLIFT READINESS DEPENDS ON THE READINESS OF EACH OF THESE INDIVIDUAL COMPONENTS:

- 1) MAINTENANCE PERSONNEL MUST KEEP PROFICIENT BY "HANDS ON" TRAINING AS AIRCRAFT FLOW THROUGHOUT THE AIRLIFT SYSTEM.
  - 2) SUPPLY MUST BE CAPABLE OF SUPPORTING WARTIME SURGE AND SUSTAINED UTILIZATION RATES WITH SPARE PARTS. SUPPLY UNITS DEPEND ON FLYING HOURS TO MAINTAIN ADEQUATE SUPPLY LEVELS.
  - 3) AIRCRAFT MUST BE CAPABLE OF FLYING WARTIME UTILIZATION RATES.
  - 4) RELIABILITY OF INTELLIGENCE ESTIMATES, EFFECTIVENESS OF COMMAND AND CONTROL ELEMENTS, AND ENROUTE SUPPORT SERVICES ALL CONTRIBUTE TO THE READINESS OF THE OVERALL AIRLIFT SYSTEM.
  - 5) AIRLIFT USERS MUST BE FAMILIAR WITH THE CAPABILITIES AND CHARACTERISTICS OF THE AIRLIFT SYSTEM TO SUPPORT THEIR WARTIME AIRLIFT MOVEMENT REQUIREMENTS.
  - 6) AERIAL PORT SPECIALISTS MUST BE READY TO PROCESS, LOAD, AND UNLOAD USER GENERATED CARGO FROM EACH TYPE OF AIRLIFT AIRCRAFT THEY WILL BE EXPECTED TO SUPPORT DURING WARTIME.
  - 7) FINALLY, AIRCREW MEMBERS MUST BE READY TO OPERATE THEIR AIRCRAFT IN THIS COMPLEX AIRLIFT SYSTEM.
- ACCORDING TO MAC, THE FOUR MOST IMPORTANT ELEMENTS OF THE AIRLIFT READINESS SYSTEM ARE MAINTENANCE, SUPPLY, AERIAL PORTS, AND AIRCREW READINESS.

AIRCREW READINESS IS PRIMARILY A FUNCTION OF TRAINING GAINED THROUGH THE FLYING HOUR PROGRAMS WHICH PERMIT AIRCREWS TO OPERATE IN THE AIRLIFT SYSTEM. SINCE THE FLYING HOUR PROGRAM IS THE AREA OF THE AIRLIFT READINESS PROGRAM MOST CLOSELY SCRUTINIZED, WE WILL EXAMINE IT IN GREATER DETAIL. KEEP IN MIND THAT ANY CHANGES IN THE AIRCREW READINESS PROGRAM MAY ALSO AFFECT THE READINESS OF THESE OTHER COMPONENTS OF THE SYSTEM.

## C-5 FLYING HOUR PROGRAM (FY 85)

-- EVENT CENTERED --

### LOCAL PROFICIENCY SORTIES (LPS)

LPS MISSIONS PER YEAR  
PER PILOT

HRS PER LPS  
MISSION PER PILOT

● ACTIVE AC & OVERHEAD ATTACHED

8 (12.6 HRS/YR)

3 @ 2 HRS/4 @ 1 HR/  
1 2.6 HR EVAL

● ASSOCIATE AC & OVERHEAD ATTACHED

10 (14.6 HRS/YR)

3 @ 2 HRS/6 @ 1 HR/  
1 2.6 HR EVAL

● ACTIVE & ASSOCIATE COPILOT

12 (24.6 HRS/YR)

11 @ 2 HRS/  
1 2.6 HR EVAL

### GLOBAL MISSIONS

MISSIONS PER YEAR

HRS PER MISSION

● ACTIVE AC & OVERHEAD ATTACHED

4

28.2 HRS

● ASSOCIATE AC & OVERHEAD ATTACHED

4

21.5 HRS

NOTE: USER NEEDS ARE NOT CONSIDERED IN DETERMINING THE REQUIRED NUMBER OF  
FLYING HOURS

Slide 6: Event-Oriented Nature of the C-5 Flying Hour Program

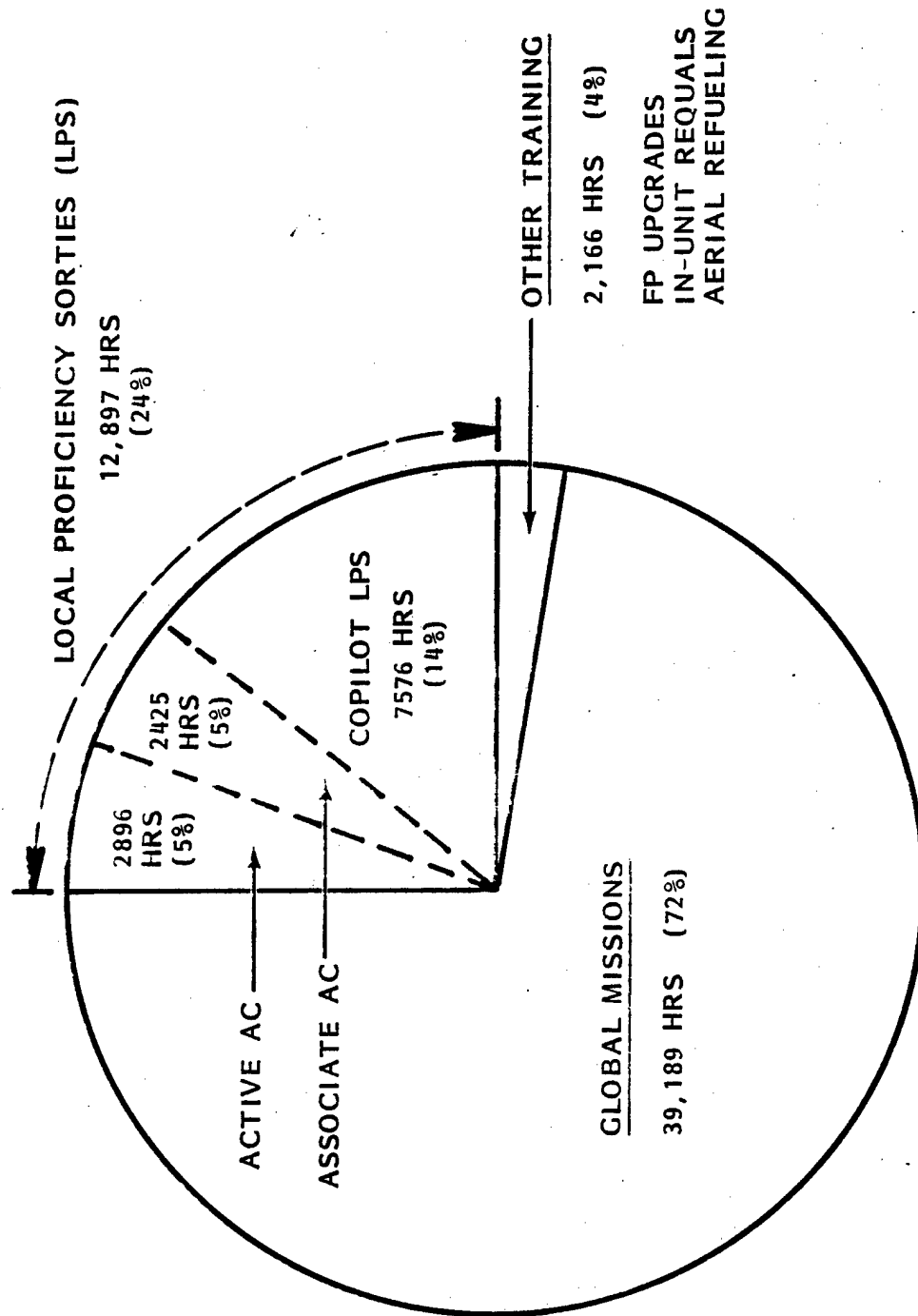
AIRLIFT FLYING HOUR PROGRAMS ARE EVENT-CENTERED. USER NEEDS DO NOT EVEN ENTER IN DETERMINING THE NUMBER OF FLYING HOURS REQUIRED TO SUPPORT THE AIRCREW TRAINING PROGRAM. THEY ARE DERIVED BY MULTIPLYING THE NUMBER OF INDIVIDUAL EVENTS REQUIRED ANNUALLY BY EACH PILOT TIMES THE AMOUNT OF FLIGHT TIME NEEDED TO ACCOMPLISH EACH EVENT TIMES THE NUMBER OF PILOTS WHO WILL NEED TO PERFORM THESE EVENTS.

SINCE THE ACQUISITION OF 50 NEW C-5S IS THE PRIMARY REASON FOR THE NEAR-TERM GROWTH OF OUR UNSUBSCRIBED PEACE-TIME BY-PRODUCT CARGO CAPACITY, WE WILL FOCUS OUR ATTENTION ON THE C-5 FLYING HOUR PROGRAM AS SUBMITTED BY THE MILITARY AIRLIFT COMMAND, VALIDATED BY THE AIR STAFF, AND APPROVED BY CONGRESS.

THE FY 85 C-5 FLYING HOUR PROGRAM IS AN AUSTERE, EVENT-CENTERED PROGRAM. AS YOU CAN SEE FROM THIS SLIDE, A QUALIFIED C-5 PILOT RECEIVES ONLY 12.6 HOURS PER YEAR (14.6 HOURS PER YEAR FOR RESERVE PILOTS) FOR LOCAL PROFICIENCY SORTIES. DURING THESE FLIGHTS, PILOTS RECEIVE THE VAST MAJORITY OF THEIR ANNUAL TRAINING REQUIREMENTS AS WELL AS THEIR ANNUAL FLIGHT EVALUATIONS. COPILOTS ARE ALLOCATED 24.6 HOURS PER YEAR TO PROVIDE THEM TIME TO MAINTAIN CURRENCY AND UPGRADE TO AIRCRAFT COMMANDER.

EACH C-5 AIRCRAFT COMMANDER AND OVERHEAD ATTACHED PILOT IS REQUIRED TO FLY 4 GLOBAL MISSIONS PER YEAR. COPILOTS OBTAIN THEIR 4 GLOBAL MISSIONS PER YEAR IN CONJUNCTION WITH AIRCRAFT COMMANDERS AND OVERHEAD ATTACHED PILOTS, THEREFORE NO ADDITIONAL FLYING HOURS HAVE TO BE ALLOCATED FOR THEM TO ACCOMPLISH THESE EVENTS. THESE GLOBAL MISSION ARE THE BACKBONE OF THE AIRLIFT READINESS PROGRAM SINCE THIS IS THE ONLY OPERATIONAL TRAINING AIRCREWS RECEIVE TO PREPARE THEM TO PERFORM THEIR WARTIME AIRLIFT MISSION. THE GLOBAL MISSION IS THE ONLY ELEMENT OF THE AIRLIFT READINESS PROGRAM THAT CAN EXERCISE ALL OF THE INDIVIDUAL COMPONENTS SIMULTANEOUSLY.

# **FY 85 C-5 FLYING HOUR PROGRAM**



TOTAL FY85 C-5 FLYING HOURS: 54,252

(SOURCE: AF/XOOTA, MAY 84)

Slide 7: "C-5 Flying Hour Program"

WHEN THESE TRAINING REQUIREMENTS ARE TRANSLATED INTO FLYING HOURS, THE OVERALL C-5 FLYING HOUR PROGRAM IS OBTAINED. FOR FY 85, THE C-5 FLYING HOUR PROGRAM CONSISTS OF 54252 HOURS. THIS SLIDE ALSO REFLECTS THE ADDITIONAL FLYING HOURS THAT MUST BE ADDED FOR FIRST PILOT UPGRADES, IN-UNIT REQUALIFICATIONS, AND AIR REFUELING TRAINING FOR 80 ACTIVE AND 16 RESERVE CREWS. AFTER THE FLYING HOUR PROGRAM HAS BEEN DERIVED FROM TRAINING REQUIREMENTS, THE USER NEEDS ARE USED TO ALLOCATE WHERE THE MISSIONS WILL BE FLOWN. HOWEVER, NO ADDITIONAL HOURS ARE ADDED TO THE TRAINING REQUIREMENTS TO SATISFY USER REQUIREMENTS.

THE 54252 HOURS CONTAINED IN THE FY 85 C-5 FLYING HOUR PROGRAM TRANSLATES INTO A PEACETIME UTILIZATION RATE OF 2.15 HOURS PER DAY FOR THE C-5. THE WARTIME SURGE UTILIZATION RATE FOR THE C-5 IS 12.5 HOURS PER DAY. IN OTHER WORDS, THE C-5 IS FLYING ABOUT ONE-SIXTH AS MANY HOURS IN PEACETIME AS IT WILL BE REQUIRED TO FLY IN WARTIME.

AS YOU CAN SEE, THE BULK OF THE C-5 FLYING HOUR PROGRAM (72%) COMES FROM THE REQUIREMENT FOR 4 GLOBAL MISSIONS PER PILOT PER YEAR. SINCE THE GLOBAL MISSION IS THE SINGLE LARGEST COMPONENT OF THE C-5 FLYING HOUR PROGRAM, AND IT IS ALSO THE PORTION OF THE FLYING HOUR PROGRAM THAT GENERATES THE BY-PRODUCT CARGO CAPACITY, WE EXAMINED THIS EVENT IN GREATER DETAIL.

## MAC AIRCREW TRAINING COMPARED TO AIRLINE FLYING ACTIVITY

<u>MAJOR AIRLINES</u>	<u>CATEGORY</u>	<u>MAC</u>
LOCAL COMPANY TRAINING SIMULATOR DRY RUN PROGRESSION TO SENIORITY ROUTE FLT w/CHECK CAPTAIN <u>ROUTE CERTIFICATION</u>	INITIAL INTERNATIONAL CERTIFICATION	FORMAL SCHOOLING LOCAL CHECKRIDE LINE TRAINING MISSIONS OPERATIONAL MISSION EVAL <u>GLOBAL CERTIFICATION</u>
ANNUAL FLIGHT EVAL BY CHECK CAPTAIN OVER SAME ROUTE <u>ROUTE RECERTIFICATION</u>	RECURRENT CERTIFICATION	ANNUAL OVERSEAS CHECKRIDE OVER ANY ROUTE <u>GLOBAL RECERTIFICATION</u>
APPROX 3 MONTHLY INTERNAT'L MISSIONS <u>SAME ROUTE</u> EACH TIME	OVERSEAS FREQUENCY	OVERSEAS SORTIES REQ'D QUARTERLY MAY FLY <u>ANY ASSIGNED ROUTE</u>
APPROX 80 MONTHLY FLYING HOURS ANNUAL FLIGHT TIME = 960 HOURS AVERAGE WIDE-BODIED AIRCRAFT CAPTAIN HAS 23,650 FLYING HOURS	EXPERIENCE	APPROX 30 MONTHLY FLYING HOURS ANNUAL FLIGHT TIME = 360 HOURS AVERAGE C-5 PILOT HAS 3,963 TOTAL HRS

(SOURCES: MAC/DPRCA & ALPA, JUL 84)

Slide 8: "Comparison with Airline Training Program"

FOR INFORMATIONAL PURPOSES, WE EXAMINED THE REQUIREMENTS THAT THE AIRLINES HAVE ESTABLISHED FOR TRAINING AND MAINTAINING THEIR CREWS WHO FLY INTERNATIONAL ROUTES TO SEE HOW THEY COMPARE WITH THE C-5'S QUARTERLY GLOBAL MISSION REQUIREMENTS. THIS INFORMATION WAS OBTAINED FROM THE ENGINEERING AND AIR SAFETY OFFICE OF THE AIRLINE PILOTS ASSOCIATION.

THE PURPOSE OF THIS COMPARISON IS SIMPLY TO POINT OUT THAT MAC C-5 PILOTS ARE EXPECTED TO FLY A WIDER VARIETY OF MISSIONS THAN THEIR AIRLINE COUNTERPARTS EVEN THOUGH THEY ARE CONSIDERABLY LESS EXPERIENCED. HOWEVER, THE REASON FOR THIS DISPARITY HAS TO DO WITH THE DIFFERENCES IN THE TWO FLYING HOUR PROGRAMS. AIRLINE FLYING HOUR PROGRAMS ARE ESTABLISHED AS A BUSINESS WITH A PROFIT MOTIVE; MAC FLYING HOUR PROGRAMS ARE DESIGNED TO REFLECT THE MINIMUM NUMBER OF HOURS REQUIRED TO MAINTAIN THE READINESS OF THE AIRLIFT SYSTEM.

WHEN AN AIRLINE PILOT'S QUALIFICATION IS UPGRADED FROM DOMESTIC TO INTERNATIONAL, HE MUST BECOME "ROUTE QUALIFIED" FOR THE SPECIFIC ROUTE THAT HE WILL FLY. INITIAL ROUTE QUALIFICATION CONSISTS OF A DRY RUN OF THE ROUTE IN A SIMULATOR FOLLOWED BY A FLIGHT OVER THE SAME ROUTE IN THE AIRCRAFT WITH A CHECK CAPTAIN. THIS INITIAL INTERNATIONAL CERTIFICATION FOR AN AIRLINE PILOT QUALIFIES HIM TO FLY ONLY ON ONE ROUTE. BY CONTRAST, MAC AIRCRAFT COMMANDERS RECEIVE A LINE TRAINING MISSION FOLLOWED BY AN OPERATIONAL MISSION EVALUATION (OME). THIS ONE QUALIFIES THE MAC PILOT TO FLY ANY ASSIGNED ROUTE IN THE WORLD.













EACH YEAR, BOTH THE AIRLINE PILOT AND MAC PILOT MUST BE RECERTIFIED. THE AIRLINE PILOT RECEIVES AN ANNUAL FLIGHT EVALUATION BY A CHECK CAPTAIN OVER HIS ASSIGNED ROUTE. MAC PILOTS RECEIVE AN ANNUAL EVALUATION OVER WHATEVER ROUTE THEY HAPPEN TO BE SCHEDULED FOR ON THE DAY OF THE EVALUATION.

IN TERMS OF FREQUENCY, AIRLINE PILOTS WILL NORMALLY FLY THEIR INTERNATIONAL ROUTE AN AVERAGE OF THREE TIMES PER MONTH (36 TIMES PER YEAR). BY COMPARISON, MAC PILOTS ARE ONLY REQUIRED TO FLY ONE GLOBAL MISSION PER QUARTER (4 MISSIONS PER YEAR) IN ORDER TO REMAIN GLOBALLY CERTIFIED. SINCE MAC PILOTS FREQUENTLY FLY TO AUGMENT OTHER CREWS, C-5 AIRCRAFT COMMANDERS NORMALLY AVERAGE MORE THAN ONE GLOBAL MISSION PER QUARTER. HOWEVER, THE FLYING HOUR PROGRAM IS ONLY BASED ON 4 GLOBAL MISSIONS PER YEAR.

AIRLINE CAPTAINS ARE SUBSTANTIALLY MORE EXPERIENCED THAN C-5 AIRCRAFT COMMANDERS. THE AVERAGE WIDE-BODIED AIRCRAFT CAPTAIN WILL FLY APPROXIMATELY 80 HOURS PER MONTH FOR AN AVERAGE OF 960 HOURS PER YEAR. FEDERAL AVIATION REGULATIONS RESTRICT AIRLINE PILOTS TO 1000 HOURS PER YEAR. THE AVERAGE WIDE-BODIED AIRCRAFT CAPTAIN ALSO HAS LOGGED 23,650 TOTAL FLYING HOURS. MAC C-5 AIRCRAFT COMMANDERS AVERAGE 30 HOURS PER MONTH FOR AN ANNUAL AVERAGE OF 360 HOURS. ADDITIONALLY, THE AVERAGE C-5 AIRCRAFT COMMANDER HAS 3963 TOTAL FLYING HOURS.



# IMPACT OF CHANGES IN GLOBAL MISSION TRAINING REQUIREMENTS ON COMPONENTS OF AIRLIFT READINESS SYSTEM

COMPONENT -- CHANGE	AIRCREW TRAINING	MAINTENANCE TRAINING	SUPPLY	AERIAL PORT TRAINING
SUBSTITUTE SIMULATION FOR C-5 GLOBAL TRAINERS				
SUBSTITUTE CTA FOR C-5 GLOBAL TRAINERS				
CONTINUE C-5 GLOBAL TRAINING MISSIONS				

## LEGEND



PROVIDES READINESS TRAINING



PROVIDES LIMITED READINESS TRAINING



PROVIDES NO READINESS TRAINING

SOURCE: AF/SAGM REVIEW  
OF RESEARCH ON FLYING TNG  
AND LEARNED BEHAVIOR,  
JAN - JUN 84

Slide 9: "Impact of Changes to C-5 Global Missions"

THE BACKBONE OF THE CURRENT AIRLIFT READINESS PROGRAM IS THE QUARTERLY TRAINING REQUIREMENT FOR EACH C-5 PILOT TO FLY A GLOBAL MISSION. AS WE CONDUCTED OUR FIELD RESEARCH, WE INTERVIEWED SOME AIRLIFT USERS WHO SUGGESTED MAC COULD REDUCE ITS FORECAST UNSUBSCRIBED BY-PRODUCT CAPACITY BY REDUCING THE NUMBER OF C-5 FLYING HOURS. THE GLOBAL MISSION WAS THE MOST COMMON TARGET FOR REDUCTIONS SINCE IT MAKES UP 72 PERCENT OF TOTAL C-5 FLYING HOUR PROGRAM. TWO ALTERNATIVES TO THE C-5 GLOBAL MISSION EMERGE: 1) SUBSTITUTE THE USE OF FLIGHT SIMULATORS AND AIRCRAFT LOADING MODULES FOR THE GLOBAL MISSIONS FLOWN IN C-5S, OR 2) USE A LESS EXPENSIVE COMPANION TRAINER IN PLACE OF THE C-5.

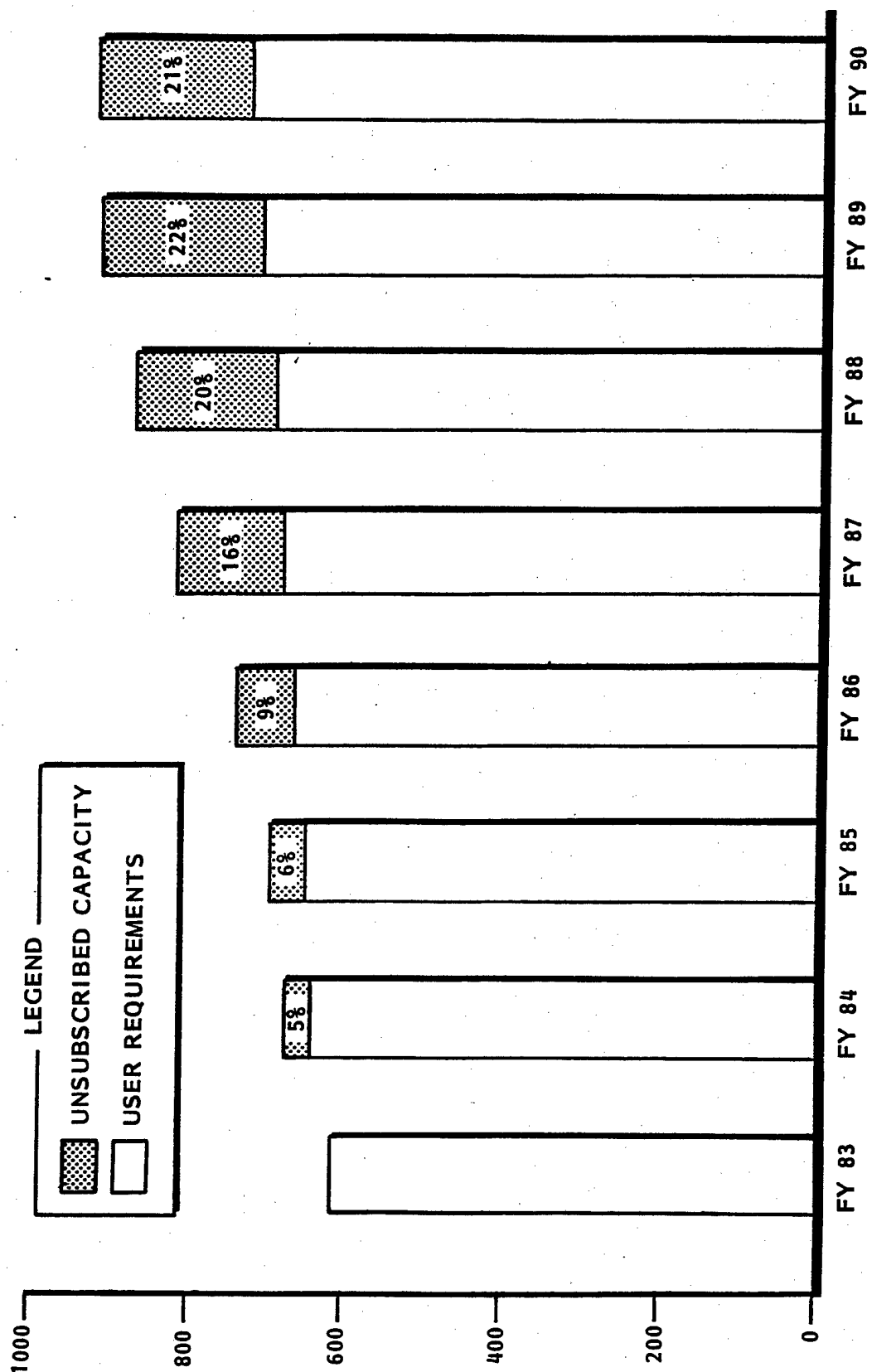
FIRST, WE LOOKED AT THE SUBJECT OF SIMULATION. MAC CURRENTLY EMPLOYS BOTH FLIGHT SIMULATORS AND AIRCRAFT LOADING MODULES TO AUGMENT TRAINING FOR AIRCREWS AND AERIAL PORT SPECIALISTS, RESPECTIVELY. THERE ARE, HOWEVER, SOME SIGNIFICANT PROBLEMS ASSOCIATED WITH THE USE OF SIMULATION AS A SUBSTITUTE FOR THE C-5 GLOBAL MISSIONS. SIMULATORS DO NOT PROVIDE ANY TRAINING VALUE FOR C-5 MAINTENANCE PERSONNEL, NOR DO THEY EXERCISE THE RESPONSIVENESS OF THE SUPPLY SYSTEM TO DEMANDS FOR C-5 SPARE PARTS. IN ADDITION, SIMULATION OFFERS ONLY A LIMITED LEARNING ENVIRONMENT FOR THE AIRCREW. WHILE THE FLIGHT SIMULATOR IS AN EXCEPTIONAL MEDIUM FOR PRACTICING INSTRUMENT APPROACHES, OUR RESEARCH INDICATED THAT ACTUAL FLYING HOURS ARE ESSENTIAL FOR ENHANCING AIRMANSHIP AND JUDGMENT FOR EXPERIENCED AVIATORS. ADDITIONALLY, LOADMASTERS RECEIVE NO TRAINING SINCE THEY HAVE NO DUTIES IN A FLIGHT SIMULATOR. AERIAL PORT SPECIALISTS ALSO GET SOME TRAINING VALUE FROM USING AIRCRAFT LOADING MODULES. FURTHERMORE RECURRENT EXPOSURE TO THE MAC AIRLIFT SYSTEM TRAINS AIRCRAFT COMMANDERS IN COORDINATING AN AIRCREW AND MANAGING THE INTERACTION WITH SUPPORT AGENCIES.

NEXT, WE EXAMINED THE POSSIBILITY OF EMPLOYING A COMPANION TRAINER AIRCRAFT IN PLACE OF THE C-5. THIS ALTERNATIVE ALSO HAS BOTH ADVANTAGES AND DISADVANTAGES. COMPANION TRAINER AIRCRAFT SUCH AS THE GULFSTREAM III OR LEAR 35 COULD PROVIDE SOME TRAINING VALUE FOR PRACTICING INSTRUMENT APPROACHES AND OPERATING ON INTERNATIONAL ROUTES. HOWEVER, THE FLIGHT ENGINEER DOES NOT RECEIVE ANY TRAINING VALUE FROM A COMPANION TRAINER AND THE CREW RECEIVES ONLY LIMITED READINESS TRAINING FOR THREE MAIN REASONS. FIRST, THE UNIQUE LANDING PICTURE OF THE C-5 CANNOT BE DUPLICATED IN ANY COMPANION TRAINER AIRCRAFT. ALSO, MAC WOULD LOSE ALL ITS GLOBAL AERIAL REFUELING TRAINING MISSIONS UNDER THIS SCENARIO SINCE THIS TRAINING IS ACCOMPLISHED DURING THE GLOBAL MISSIONS. FINALLY, THE C-5 HAS DISTINCTIVE GROUND HANDLING CHARACTERISTICS THAT CANNOT BE DUPLICATED BY A COMPANION TRAINER AIRCRAFT. FURTHERMORE A COMPANION TRAINER AIRCRAFT WOULD CARRY NO CARGO. CONSEQUENTLY, THEY WOULD PROVIDE NO ROUTE TRAINING VALUE FOR AERIAL PORT SPECIALISTS OR LOADMASTERS WITHIN THE MAC TRAINING ROUTE STRUCTURE. THESE PERSONNEL WOULD RECEIVE NO "HANDS-ON" TRAINING IN LOADING OR UNLOADING OUTSIZE, OVERSIZE, AND BULK CARGO. THIS WOULD CRITICALLY IMPACT THE AERIAL PORT SPECIALISTS, SINCE MOST OF THEM ARE RESERVISTS. ADDITIONALLY, NEITHER THE C-5 SUPPLY SYSTEM NOR MAINTENANCE PERSONNEL WOULD BE TESTED BY THE USE OF COMPANION TRAINER AIRCRAFT. THEREFORE, WE CONCLUDED THAT WHILE COMPANION TRAINER AIRCRAFT COULD PROVIDE LIMITED TRAINING VALUE FOR C-5 PILOTS AND COPILOTS, NO TRAINING VALUE WOULD BE DERIVED FOR LOADMASTERS OR FLIGHT ENGINEERS.

THE CURRENT REQUIREMENT FOR EACH C-5 PILOT TO FLY FOUR GLOBAL MISSIONS PER YEAR DOES ADEQUATELY EXERCISE EVERY COMPONENT OF THE AIRLIFT SYSTEM. THIS IS THE ONLY OPTION WE EXAMINED THAT WAS CAPABLE OF SIMULTANEOUSLY EXERCISING EVERY COMPONENT OF THE AIRLIFT SYSTEM. BASED ON OUR RESEARCH, MAC'S CURRENT FLYING HOUR PROGRAMS ADEQUATELY ENSURE AIRLIFT SYSTEM READINESS. ANY ALTERATIONS TO THE AIRLIFT READINESS PROGRAM SHOULD BE VIEWED IN TERMS OF THE IMPACT THEY WILL HAVE ON THE READINESS OF THE OVERALL AIRLIFT SYSTEM.

# PROJECTED GROWTH OF PEACETIME AIRLIFT CAPACITY

MILLION TON MILES  
PER YEAR



( SOURCE: MAC/ACIB, JUN 84 )

Slide 10: "Projected Growth of Peacetime Airlift Capacity"

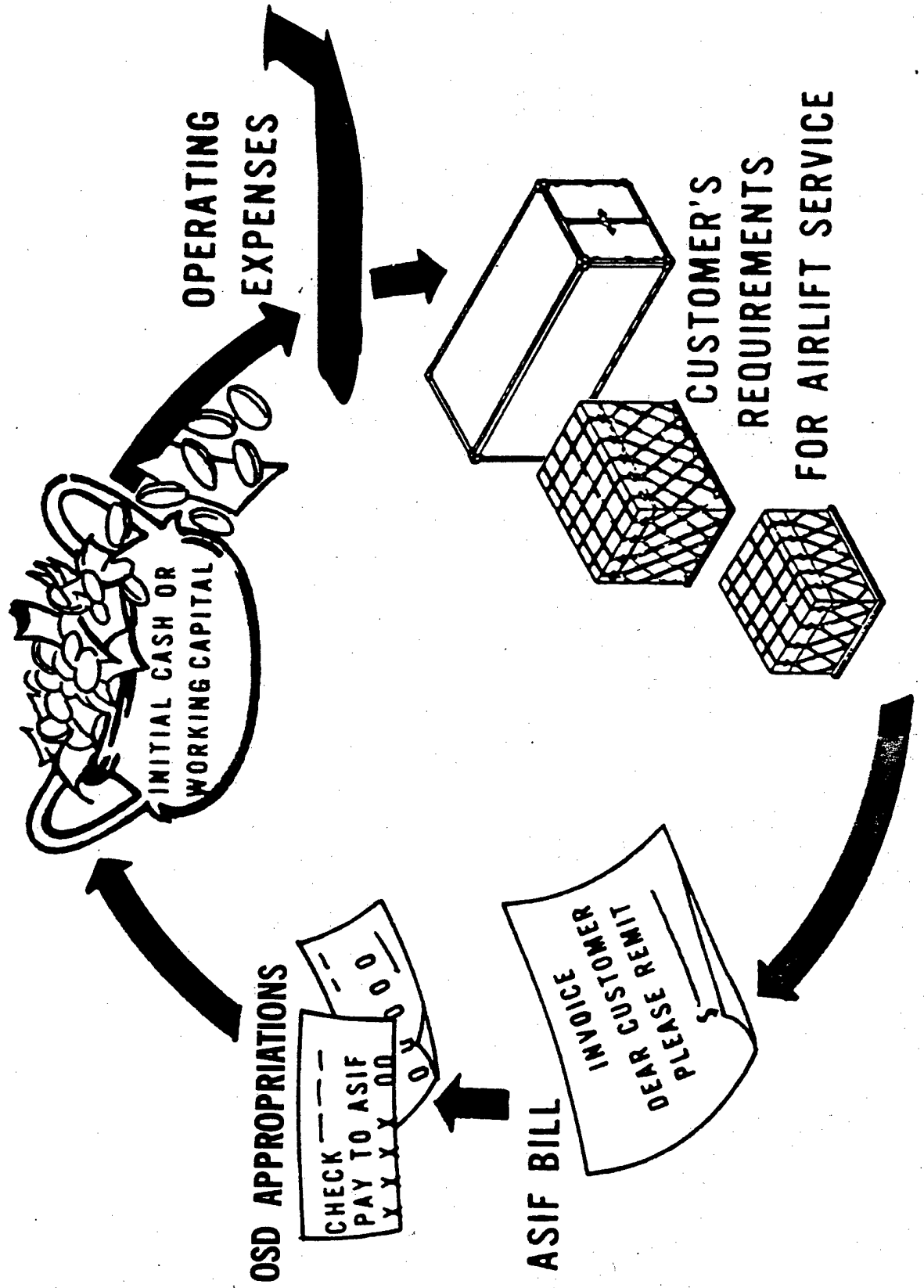
AS A RESULT OF THE REQUIREMENT FOR MAC TO MAINTAIN AN AIRLIFT SYSTEM THAT IS READY TO MEET THE REQUIREMENTS OF THE UNIFIED AND SPECIFIED COMMANDS, A BY-PRODUCT CARGO CAPACITY IS GENERATED. THIS BY-PRODUCT CAPACITY IS UNIQUE SINCE IT HAS THE CAPABILITY TO GENERATE REVENUE TO PAY FOR SOME OF THE OPERATING COSTS OF THE AIRLIFT READINESS PROGRAM. HISTORICALLY, THIS BY-PRODUCT AIRLIFT CAPACITY HAS ALWAYS BEEN FILLED WITH USER-PAID CARGO. AS A RESULT OF THE GROWTH IN THE SIZE OF OUR AIRLIFT FLEET WHICH IS NECESSARY TO MEET WARTIME REQUIREMENTS IDENTIFIED IN THE CONGRESSIONALLY MANDATED MOBILITY STUDY, WE ARE ALSO FACING A RAPID GROWTH IN THE AMOUNT OF BY-PRODUCT CARGO CAPACITY.

THE MILITARY AIRLIFT COMMAND HAS PROJECTED THAT THE USER REQUIREMENTS FOR PEACETIME AIRLIFT WILL GROW AT APPROXIMATELY 2 PERCENT PER YEAR BASED ON HISTORICAL RECORDS. AS A RESULT OF THE AIRLIFT ENHANCEMENT PROGRAMS FORECAST OVER THE FIVE-YEAR DEFENSE PLAN, OUR BY-PRODUCT CARGO CAPACITY BEGAN TO EXCEED THE THE USER'S PEACETIME REQUIREMENTS IN FY 84. BY FY 90, 21 PERCENT OF MAC'S BY-PRODUCT CARGO CAPACITY IS PROJECTED TO BE UNSUBSCRIBED IF NO ACTIONS ARE TAKEN TO ATTRACT MORE CARGO INTO THE AIRLIFT SYSTEM.

THE TOTAL CAPACITY REFLECTED BY THIS BAR GRAPH INCLUDES THE ACTIVE C-141 FLEET, THE ACQUISITION OF 50 NEW C-55, AND THE ANNUAL CIVIL CARGO BUY. IT ALSO INCLUDES THE PROGRAMMED TRANSFER OF C-5A AND C-141 ASSETS TO THE AIR RESERVE FORCES. AIRCRAFT TRANSFERRED TO THE AIR RESERVE FORCES ARE ASSUMED TO GENERATE BY-PRODUCT CARGO CAPACITY AT HALF THE RATE OF COMPARABLE AIRCRAFT ASSIGNED TO THE ACTIVE FORCES. KEEP IN MIND THAT THIS GRAPH IS BASED ON PEACETIME UTILIZATION RATES FLOWN TO MAINTAIN READINESS OF THE AIRLIFT SYSTEM AND SHOULD NOT BE CONFUSED WITH TODAY'S ACTUAL CAPABILITY FOR MOVING CARGO IN A WAR OR NATIONAL EMERGENCY. THE AVAILABLE CAPACITY SHOWN ON THIS GRAPH IS BASED ONLY ON THE OUTBOUND LEG SINCE CARGO IS NORMALLY DELIVERED TO A DESTINATION AND THE AIRCRAFT MAY RETURN HOME WITHOUT CARGO. THIS MEANS THERE IS AN ASSUMED PRODUCTIVITY FACTOR OF 50%. IN ADDITION, THIS CAPACITY IS BASED ON THE AIRCRAFT CARRYING 79% OF THEIR ALLOWABLE CABIN LOAD (ACL).

THE NEXT TWO SECTIONS OF THIS BRIEFING WILL DISCUSS HOW THE AIRLIFT SERVICE INDUSTRIAL FUND SERVES AS A MECHANISM FOR ALLOCATING AIRLIFT RESOURCES TO COMPETING USER CARGO REQUIREMENTS, AND WILL EXAMINE 12 POSSIBLE WAYS FOR ATTRACTING CARGO INTO THE AIRLIFT SYSTEM.

# INDUSTRIAL FUND CYCLE



Slide 11: "Industrial Fund Cycle"

A FEW FACTS ABOUT MAC'S PEACETIME OPERATIONS UNDER THE INDUSTRIAL FUND CYCLE AND THE AIRLIFT SERVICES INDUSTRIAL FUND (CALLED THE ASIF) PROVIDE ESSENTIAL BACKGROUND INFORMATION ABOUT OUR STUDY.

AS A RESULT OF MAC'S AIRLIFT READINESS TRAINING PROGRAM, THE DEPARTMENT OF DEFENSE HAS THE OPPORTUNITY TO RECOVER SOME OF THE COSTS OF AIRLIFT READINESS BY SELLING BY-PRODUCT CARGO CAPACITY TO AIRLIFT USERS. PRIOR TO 1958, NO METHOD EXISTED TO PRIORITIZE USER REQUIREMENTS AND ALLOCATE BY-PRODUCT CARGO CAPACITY AMONG COMPETING USERS. IN ESSENCE, MAC'S AIRLIFT WAS "FREE" TO USERS BASED ON HOW WELL THE USERS JUSTIFIED THEIR REQUIREMENTS. IN THE MID-1950'S, THE HOOVER COMMISSION WAS APPOINTED TO INVESTIGATE HOW THE BY-PRODUCT AIRLIFT CARGO CAPACITY WAS ALLOCATED. THEY REPORTED NUMEROUS ABUSES OF THE USE OF AVAILABLE BY-PRODUCT CAPACITY. SOME USERS WERE INFLATING THE PRIORITY OF THEIR CARGO TO GET A LARGER SHARE OF MAC'S BY-PRODUCT CAPACITY, WHILE OTHER USERS WITH LEGITIMATE REQUIREMENTS WERE UNABLE TO OBTAIN AIRLIFT.

IN 1958, ASIF WAS ESTABLISHED BY CONGRESS AS A MANAGEMENT TOOL DESIGNED TO ALLOCATE DOD AIRLIFT AND TO PROVIDE FLEXIBILITY TO EXPAND TO MEET CHANGING AIRLIFT NEEDS. THE ASIF PUT A QUANTIFIABLE DOLLAR VALUE ON AIRLIFT BY-PRODUCT CARGO CAPACITY AND BEGAN TO HOLD USERS ACCOUNTABLE FOR THEIR TRANSPORTATION REQUIREMENTS. THE ASIF IS AN INDUSTRIAL FUND, SIMILAR TO A BANK ACCOUNT. AN INITIAL WORKING CAPITAL OF \$75 MILLION WAS APPROPRIATED BY CONGRESS TO FINANCE OPERATING COSTS RESULTING FROM PROVIDING AIRLIFT TO SATISFY CUSTOMER DEMANDS. CUSTOMERS ARE BILLED FOR THE AIRLIFT SERVICES AT PREDETERMINED TARIFF RATES AND THEY, IN TURN, PAY THE ASIF. ASIF PROFITS OR LOSSES ARE ROLLED FORWARD INTO THE NEXT YEAR'S TARIFF CYCLE AND THE TARIFF RATES ARE THEN ADJUSTED TO MAINTAIN THE "BREAK-EVEN" CONCEPT OF THE ASIF. THUS, THE OPERATING COSTS PAID BY THE ASIF ARE RECOVERED AND THE FUND, IN EFFECT, "REVOLVES". IF THERE IS INSUFFICIENT ORGANIC CARGO CAPACITY TO MEET USER REQUIREMENTS, THE ASIF ALSO PROVIDES A MECHANISM TO PURCHASE COMMERCIAL AUGMENTATION.

ACCORDING TO MAC, THERE ARE THREE KEY POINTS TO REMEMBER ABOUT THE ASIF THAT DISTINGUISH IT FROM FUNDING CONCEPTS OF PRIVATE ENTERPRISE. FIRST, THE OBJECTIVE OF PRIVATE ENTERPRISE IS TO MAKE A PROFIT, BUT THE FINANCIAL OBJECTIVE OF THE ASIF IS TO BREAK-EVEN. NEXT, THE PEACETIME USE OF MAC'S FLYING HOURS IS MADE ON THE BASIS OF HOW WELL IT PREPARES THE AIRLIFT SYSTEM FOR MAC'S PRIMARY MISSION--OPERATIONAL AND LOGISTICAL SUPPORT DURING WARTIME. FINALLY, THE DECISION TO USE AIRLIFT OR A CHEAPER, SLOWER MODE OF TRANSPORTATION IS PLACED ON THE USER.



## **FACTORS CONSIDERED IMPORTANT MEASURES OF EFFECTIVENESS OF THE AIRLIFT SERVICES INDUSTRIAL FUND**

- HOLDS MANAGERS ACCOUNTABLE FOR TRANSPORTATION COSTS
- LINKS OPERATING COSTS TO TARIFFS
- KEEPS TARIFFS STABLE
- PROVIDES FLEXIBLE AUGMENTATION

Slide 12: "Factors Considered Important"

WE BEGAN OUR ANALYSIS OF THE AIRLIFT SERVICES INDUSTRIAL FUND BY DETERMINING HOW THE ASIF ENHANCES DEFENSE TRANSPORTATION MANAGEMENT. THE FACTORS LISTED HERE ARE THE FACTORS CONSIDERED IMPORTANT IN MEASURING THE EFFECTIVENESS OF THE ASIF.

IT HOLDS MANAGERS ACCOUNTABLE FOR TRANSPORTATION COSTS. THE ASIF FORCES TRANSPORTATION MANAGERS TO PAY FOR THE REAL COST OF AIR TRANSPORTATION. IT PROVIDES AN ACCOUNT FOR SERVICES PROVIDED, AND IT CHARGES A PRICE WHICH REFLECTS THE PREMIUM VALUE OF AIRLIFT SERVICES.

IT LINKS OPERATING COSTS TO TARIFFS. THE ASIF RECOVERS WHAT IT SPENDS--NO MORE AND NO LESS. IT OPERATES UNDER A BREAK-EVEN TARIFF SYSTEM.

IT KEEPS TARIFFS STABLE. THE ASIF INTRODUCES PRICE STABILITY INTO THE TRANSPORTATION PLANNING PICTURE. MAC GUARANTEES ASIF PRICES UP TO ONE YEAR AHEAD OF TIME, WHICH ALLOWS VARIOUS SERVICE AGENCIES TO PLAN THEIR TRANSPORTATION REQUESTS TO THE OSD.

IT PROVIDES FLEXIBLE AUGMENTATION. SINCE THE ASIF IS A CAPITALIZED FUND, IT HAS THE MONEY NEEDED TO PROCURE COMMERCIAL AIRLIFT WHEN NECESSARY. THE ASIF HAS PROVED TO BE MOST RESPONSIVE DURING CONTINGENCIES AND EMERGENCIES. FOR EXAMPLE, MAC'S OPERATIONS UNDER AN INDUSTRIAL FUND CONCEPT PERMIT EXPANSION OF CAPABILITY BY PROCUREMENT OF COMMERCIAL AUGMENTATION. THAT IS, THERE ARE NO FUNDING LIMITATIONS WITHIN THE ASIF. IF THE CUSTOMER IS WILLING TO EVENTUALLY PAY FOR AIRLIFT, THE ASIF CAN OBTAIN THE CAPABILITY. THIS FEATURE WOULD NORMALLY NOT BE AVAILABLE UNDER A FIXED APPROPRIATION STRUCTURE. THERE MAY BE OCCASIONS WHEN PROCUREMENT OF COMMERCIAL AUGMENTATION MAY BE CONSTRAINED BY AVAILABILITY OR INCOMPATIBILITY OF THE USER'S SHIPMENT WITH AVAILABLE AIRCRAFT. MOST OF THESE SITUATIONS, HOWEVER, CAN BE SATISFIED BY REAPPLICATION OF MILITARY CAPABILITY, AND THEN USING THE COMMERCIAL AIRLIFT TO BACK-FILL ON CHANNELS THAT ARE COMPATIBLE TO THEIR AIRCRAFT.





## PERCEPTIONS OF THE ASIF

HOLDS MANAGERS  
ACCOUNTABLE FOR  
TRANSPORTATION COSTS  
LINKS OPERATING  
COSTS TO TARIFFS  
KEEPS TARIFFS  
STABLE  
PROVIDES FLEXIBLE  
AUGMENTATION

✓	✓	✓	✓
✓	✓	✓	✓
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AIRLIFT USERS 1984 INTERVIEWS

MAC COMPTROLLER 1984 INTERVIEWS

OSD COMPTROLLER 1984 INTERVIEWS

CONGRESS 1983 STATEMENTS

DEFENSE AUDIT SERVICE 1978 STUDY

USAF COMPTROLLER 1978 REVIEW

AIR STAFF BOARD 1977 REPORT

LOGISTICS MGT INSTITUTE 1976 STUDY

OPERATIONS RESEARCH, INC 1975 STUDY

USAF LOGISTICS DIRECTORATE 1974 STUDY

GENERAL ACCOUNTING OFFICE 1973 REPORT

NAT'L DEF TRANSP ASSOC 1970 PAPER

BOOZ, ALLEN, & HAMILTON 1966 REPORT

PRICE-WATERHOUSE 1956 STUDY

Slide 13: "perceptions of the ASIF"

SINCE THE IMPLEMENTATION OF THE ASIF THERE HAS BEEN SOME APPREHENSION AND CRITICISM OF THE ENTIRE CONCEPT EXPRESSED FROM TIME TO TIME. BY THE SAME TOKEN, THE ASIF RECEIVES STRONG ENDORSEMENT FROM AIRLIFT USERS AND FINANCIAL CONSULTANTS. DURING THE COURSE OF OUR STUDY, WE REVIEWED TEN MAJOR STUDIES OF THE ASIF AND CONSULTED WITH NUMEROUS EXPERTS WITHIN THE TRANSPORTATION, OPERATIONS, AND COMPTROLLER COMMUNITIES.



## **PERCEIVED ADVANTAGES AND DISADVANTAGES OF THE ASIF CITED BY CRITICS**

### **PERCEIVED ADVANTAGES**

- OVERALL DOD TRANSPORTATION COSTS ARE REDUCED BY USING BY-PRODUCT CAPACITY
- STABLE TARIFF RATES ALLOW TRANSPORTATION MANAGERS TO FORECAST THEIR COSTS
- ENCOURAGES MAC TO OPERATE EFFICIENTLY SO THEY CAN KEEP TARIFFS COMPETITIVE
- ADDS VISIBILITY TO TRANSPORTATION COSTS

### **PERCEIVED DISADVANTAGES**

- MAKES BY-PRODUCT CAPACITY APPEAR TOO EXPENSIVE TO TRANSPORTATION MANAGERS
- STABLE TARIFFS DO NOT ALLOW ASIF TO REMAIN COMPETITIVE IF COMMERCIAL AIRLIFT RATES ARE LOWERED AFTER ASIF RATES ARE SET
- WITH NO PROFIT MOTIVE, ASIF CANNOT REALLY REMAIN COMPETITIVE
- HIDES FULL COST OF AIRLIFT FLYING HOURS

### **OBJECTIVES OF THE ASIF**

- TO PROVIDE A MANAGEMENT TOOL TO ALLOCATE AIRLIFT RESOURCES AMONG COMPETING USER REQUIREMENTS
- TO ALLOW A FLEXIBLE MECHANISM FOR AUGMENTING ORGANIC AIRLIFT WITH COMMERCIAL RESOURCES TO MEET CHANGING USER REQUIREMENTS

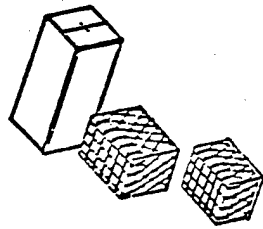
Slide 14: "Perceived Advantages and Disadvantages of the ASIF Cited by Critics"

THERE ARE SEVERAL PERCEIVED ADVANTAGES AND DISADVANTAGES OF THE ASIF THAT WERE BROUGHT OUT BY CRITICS DURING PERSONAL INTERVIEWS AND THROUGH THEIR PUBLISHED STUDIES. AS YOU WILL NOTICE, EACH PERCEIVED ADVANTAGE IS BALANCED BY A PERCEIVED DISADVANTAGE. LET ME BRIEFLY SUMMARIZE THEIR COMMENTS:

- 1) AS A RESULT OF USING THE BY-PRODUCT CARGO CAPACITY THAT RESULTS FROM THE AIRLIFT READINESS TRAINING PROGRAM, OVERALL DOD TRANSPORTATION COSTS ARE REDUCED BY APPROXIMATELY ONE BILLION DOLLARS EACH YEAR. FROM A DOD VIEWPOINT, THIS SAVINGS COMES FROM THE "DUAL USE" OF AIRLIFT RESOURCES FOR AIRLIFT SYSTEM READINESS TRAINING AND TRANSPORTATION OF USER CARGO. ON THE OTHER HAND, MANY TRANSPORTATION MANAGERS SEE THE BY-PRODUCT CAPACITY AS BEING TOO EXPENSIVE. THESE MANAGERS HAVE A LIMITED TRANSPORTATION BUDGET AND THEY FREQUENTLY DISCOVER THAT THEY MAY ACTUALLY PAY LESS OUT OF THEIR TRANSPORTATION ACCOUNT IF THEY USE COMMERCIAL CARRIERS TO MEET THEIR NEEDS.
- 2) STABLE TARIFF RATES ARE ALSO PERCEIVED AS A MIXED BLESSING. STABLE TARIFF RATES ALLOW TRANSPORTATION MANAGERS TO FORECAST THEIR ANNUAL TRANSPORTATION COSTS SINCE ASIF TARIFF RATES ARE SET ONLY ONCE A YEAR. HOWEVER, SOME CRITICS ALSO POINT OUT THAT STABLE TARIFF RATES DO NOT ALLOW THE ASIF TO REMAIN COMPETITIVE IF COMMERCIAL CARRIERS LOWER THEIR RATES AFTER ASIF RATES ARE SET FOR THE YEAR.
- 3) PROponents OF THE ASIF ARGUE THAT IT ENCOURAGES MAC TO RUN AN EFFICIENT OPERATION SO THAT THEIR TARIFF RATES CAN REMAIN LOW AND THEREBY STAY COMPETITIVE WITH COMMERCIAL TRANSPORTATION RATES. OPPONENTS CLAIM THAT THE ASIF WILL NEVER BE ABLE TO REMAIN COMPETITIVE SINCE THERE IS NO PROFIT MOTIVE TO ENCOURAGE EFFICIENCY.
- 4) FINALLY, ONE OF THE MAJOR PERCEIVED ADVANTAGES OF THE ASIF IS THAT IT INTRODUCES A HIGH DEGREE OF VISIBILITY INTO ACTUAL TRANSPORTATION COSTS. PRIOR TO THE ASIF, BY-PRODUCT CAPACITY WAS "FREE" AND USERS ABUSED THE PRIORITY SYSTEM TO GET MORE OPPORTUNE AIRLIFT. CRITICS ARGUE THAT THE ASIF PUTS A PRICE TAG ON BY-PRODUCT CAPACITY AND MAKES TRANSPORTATION COSTS MORE VISIBLE. OPPONENTS CLAIM THAT THE ASIF HIDES THE FULL COST OF THE AIRLIFT FLYING HOUR PROGRAMS SINCE USER'S TRANSPORTATION MONEY IS PAYING FOR A SUBSTANTIAL PART OF THE READINESS PROGRAM.

IN SPITE OF THESE PERCEIVED ADVANTAGES AND DISADVANTAGES OF THE ASIF CITED BY ITS CRITICS, WE CONCLUDED THAT THE ASIF IS MEETING THE OBJECTIVES ESTABLISHED BY CONGRESS IN ITS CHARTER. IN OTHER WORDS, IT DOES PROVIDE A MANAGEMENT TOOL TO ALLOCATE DOD AIRLIFT RESOURCES AMONG COMPETING USERS, AND IT DOES PROVIDE A FLEXIBLE MECHANISM FOR AUGMENTING THE ORGANIC AIRLIFT FLEET WITH COMMERCIAL AIRCRAFT WHEN THERE IS INSUFFICIENT ORGANIC AIRLIFT TO MEET CHANGING USER REQUIREMENTS.

# CRITERIA AND MEASURES OF MERIT



## CRITERIA

- WARTIME UTILITY
- DOD SAVINGS
- USAF O&M SAVINGS
- IMPACT ON COMPETITORS
- SERVICE TO CUSTOMER

## MEASURE OF MERIT

- TRAINING VALUE; DEPENDENCY  
CREATED; TIME TO DISCONNECT
- MONEY DOD SAVES
- MONEY USAF O&M ACCOUNT SAVES
- PERCENTAGE OF COMPETING LIFT  
ORGANIZATIONS' TRAFFIC AFFECTED  
BY MAC INITIATIVE
- PERCEPTION BY AIRLIFT USER

Slide 15: "Criteria & Measures of Merit"

IN SETTING UP OUR STUDY, WE COMPARED VARIOUS USES FOR BY-PRODUCT CAPACITY TO THE FIVE CRITERIA SHOWN HERE. WE APPRAISED EACH QUALITATIVE AREA IN THE FORM OF A QUANTITATIVE MEASURE, LISTED HERE IN THEIR ORDER OF IMPORTANCE.

FIRST, INITIATIVES DESIGNED TO USE THE UNSUBSCRIBED AIRLIFT CAPACITY SHOULD CONSIST OF TRAFFIC THAT HAVE A WARTIME TRAINING UTILITY. VALID PROPOSALS SHOULD ALLOW ELEMENTS OF THE AIRLIFT SYSTEM TO TRAIN DURING PEACETIME. VALID OPTIONS SHOULD NOT CREATE A SIGNIFICANT DEPENDENCY THAT COULD NOT BE QUICKLY DISCONNECTED IN WARTIME. WE SUBJECTIVELY ESTIMATED THE AMOUNT OF TIME REQUIRED TO DISCOUNTINUE EACH OF THE ALTERNATIVES THAT WE STUDIED.

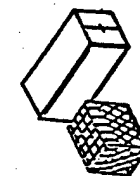
SECOND, SOME AIRLIFT USES COULD RESULT IN DOD SAVINGS. OUR STUDY MEASURED COST SAVINGS IN BOTH THE DOD BUDGET AND IN OUR THIRD AREA, USAF O&M COSTS.

OUR FOURTH MEASURE OF MERIT ASSESSED HOW THE PROPOSED INITIATIVE WOULD IMPACT THE BUSINESS OF OTHER CARRIERS, INCLUDING COMMERCIAL AND MILITARY AIRLIFT AND SEALIFT. EROSION OF THEIR INCOME FROM CARGO OR PASSENGER MOVEMENT COULD HAVE A DETERIORATING IMPACT ON THEIR RESPECTIVE OPERATIONS. WE MEASURED THIS IMPACT IN TERMS OF THEIR PERCENTAGE OF THE REVENUE TRAFFIC LOST TO MAC.

FIFTH, WE DID NOT WANT THE AIRLIFT USER TO LOSE AIRLIFT SERVICE OR FACE A DETERIORATION IN THE QUALITY OF TRANSPORTATION. WE MEASURED THIS CONCEPT SUBJECTIVELY, REVIEWING CUSTOMER COMMENTS ON THE FREQUENCY, QUALITY AND COST OF MAC AIRLIFT.

# INCREASE MAC CARGO FROM PRESENT SOURCES

OPTION	CRITERIA	WARTIME UTILITY		DOD SAVINGS		USAF O&M SAVINGS		IMPACT ON COMPETITORS		SERVICE TO CUSTOMER	
INCREASE JCS EXERCISES		○		●				○		○	
REDUCE CARGO BUY		●		○		○		●			
ENCOURAGE ALOC PROGRAMS		●		●				●			



## LEGEND

SIGNIFICANTLY IMPROVES	MODERATELY IMPROVES	(BLANK) NEGLIGIBLE IMPACT	MODERATELY DEGRADES	SIGNIFICANTLY DEGRADES
○	○		●	●

Slide 16: "Increase MAC Cargo From Present Sources"

IN EXAMINING WAYS TO INCREASE THE PRODUCTIVE USE OF BY-PRODUCT CARGO CAPACITY IN PEACETIME, WE FIRST CONSIDERED INCREASING THE AMOUNT OF AIR CARGO OFFERED BY SOURCES WHICH MAC ALREADY SERVES. THEN WE ASSESSED THE IMPACT OF EACH PROPOSAL ON PREVIOUSLY ESTABLISHED MEASURES OF MERIT. INCREASES OF THIS TYPE SHOULD REQUIRE FEW CHANGES IN PRESENT POLICIES AND PRACTICES.

FIRST, INCREASE THE AIRLIFT SUPPORT OF JCS EXERCISES. EACH YEAR THE SERVICES PARTICIPATE IN A NUMBER OF EXERCISES WHICH APPROXIMATE COMBAT OPERATIONS AND THUS PROVIDE READINESS TRAINING FOR U.S. FORCES. IN RESPONSE TO MAC'S STUDY AIRLIFT MANAGEMENT IN A NEW ERA, THE THEATER CINCS IDENTIFIED EXERCISE REQUIREMENTS WHICH COULD PRODUCTIVELY USE 151 MILLION TON MILES OF OUTBOUND AIRLIFT CAPACITY ANNUALLY TO IMPROVE THE READINESS POSTURE OF DOD FORCES. SOME RESERVATIONS WERE EXPRESSED, HOWEVER, THAT THE PARTICIPANTS MAY NOT HAVE ADEQUATE SUPPORT FUNDS AVAILABLE FOR AN EXPANDED EXERCISE PROGRAM. THIS ALTERNATIVE WOULD PROVIDE MODERATE WARTIME TRAINING VALUE SINCE THE TYPES OF CARGO AND LOCATION OF DESTINATIONS WOULD CLOSELY SIMULATE WHAT MAC WOULD DO IN WARTIME. SINCE JCS EXERCISES ARE FUNDED DIRECTLY FROM JCS O & M FUNDS, THERE WOULD BE A SIGNIFICANT COST TO DOD. COMPETITORS TEND TO FAVOR AN INCREASE IN JCS SUPPORT SINCE IT WOULD NOT TAKE ANY CARGO AWAY FROM THEM. THIS WOULD ALSO BE VIEWED AS A SIGNIFICANT IMPROVEMENT TO THE CUSTOMER (THEATER CINCS).

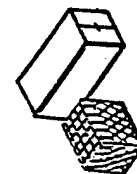
SECOND, REDUCE DOD CARGO CARRIED BY CIVIL AIRLINES. THE COMMERCIAL AIRLIFT WHICH DOD BUYS EACH YEAR FOR MAC AUGMENTATION IS USED FOR BOTH PASSENGER AND CARGO MOVEMENTS. IN RECENT YEARS, ABOUT 90 PERCENT OF DOD INTERNATIONAL PASSENGERS MOVED BY AIRLIFT HAVE TRAVELED ON CIVIL AIRCRAFT. HOWEVER, A MUCH SMALLER PROPORTION OF DOD INTERNATIONAL CARGO HAS MOVED BY CIVIL CARRIER. DOD POLICY FOR A NUMBER OF YEARS HAS BEEN TO USE CIVIL AIRCRAFT TO MOVE ESSENTIALLY ALL OF DOD PASSENGER AND MAIL TRAFFIC. THERE IS NO SIMILAR POLICY FOR CARGO MOVEMENT. ACCORDINGLY, THE AMOUNT OF CARGO AVAILABLE FOR MOVEMENT BY MAC AIRCRAFT COULD BE INCREASED MODESTLY BY DIVERTING DOD INTERNATIONAL CARGO FROM CIVIL AIRLINES. THIS COULD APPLY TO BOTH CIVIL CONTRACT AIRLIFT UNDER MAC AND CIVIL COMMON CARRIAGE. IN TERMS OF WARTIME UTILITY, THIS WOULD HAVE VERY LITTLE VALUE. THE CURRENT CARGO BUY IS DESIGNED TO EXERCISE CRAF CARRIERS IN PEACETIME. IF THE PEACETIME CARGO BUY WERE REDUCED OR ELIMINATED, IT COULD TAKE A SIGNIFICANT AMOUNT OF TIME TO REGENERATE IT DURING A WAR. BOTH THE DOD AND AIR FORCE O & M WOULD SEE A MODERATE SAVINGS. THE PROGRAMMED CIVIL CARGO BUY FOR FY 85 IS \$65.0 MILLION. THERE WOULD BE A DOD COST AVOIDANCE EQUAL TO THE VALUE OF THE CIVIL AIRLIFT NO LONGER NEEDED. THE CIVIL AIR CARRIERS WOULD UNDOUBTEDLY OPPOSE THE DIVERSION OF CARGO TRAFFIC TO MAC AIRLIFT, BECAUSE IT WOULD REDUCE AIRLINE REVENUES.

THIRD, ENCOURAGE OTHER SERVICES AND GOVERNMENT AGENCIES TO ADOPT PROGRAMS LIKE THE ARMY'S AIR LINE OF COMMUNICATION. THERE ARE NO PROGRAMS LIKE THE ARMY'S ALOC IN OTHER GOVERNMENT AGENCIES WHICH ARE MAJOR SHIPPERS OF SUPPLIES. THESE AGENCIES INCLUDE, FOR EXAMPLE, THE NAVY, DEFENSE SUPPLY AGENCY, GENERAL SERVICES ADMINISTRATION, AND THE AGENCY FOR INTERNATIONAL DEVELOPMENT. THERE IS VERY LITTLE WARTIME UTILITY IN THIS OPTION SINCE THESE CHANNELS WOULD HAVE TO BE DISCONNECTED DURING WARTIME TO MOVE HIGHER PRIORITY WARTIME CARGO. THIS OPTION WOULD PRODUCE A MODERATE COST TO DOD SINCE ADDITIONAL PERSONNEL AND FACILITIES WOULD BE REQUIRED TO PROCESS THE CARGO AT EACH END OF THE CHANNEL. COMPETITORS WOULD STRONGLY OBJECT TO THIS OPTION SINCE IT WOULD DRAW CARGO (AND REVENUE) AWAY FROM THEM.



# ESTABLISH NEW FUNCTIONS FOR MAC IN PEACETIME

OPTION	CRITERIA	WARTIME UTILITY		DOD SAVINGS		USAF O&M SAVINGS		IMPACT ON COMPETITORS		SERVICE TO CUSTOMER	
USE C-5 FOR CIVIL OUTSIZE		○						●		○	
ROTATE & REPAIR UNIT EQUIP		●								●	
ASSUME LOGAIR MISSIONS		●						●			



## LEGEND

SIGNIFICANTLY IMPROVES	MODERATELY IMPROVES	(BLANK) NEGLIGIBLE IMPACT	MODERATELY DEGRADES	SIGNIFICANTLY DEGRADES
○	○		●	●

Slide 17: "Establish New Functions for MAC in Peacetime"

ANOTHER POSSIBLE WAY TO INCREASE THE PRODUCTIVE USE OF MAC'S BY-PRODUCT AIRLIFT CAPACITY WOULD BE TO ASSIGN MORE AIRLIFT FUNCTIONS TO THE COMMAND. WE INVESTIGATED THREE OPTIONS.

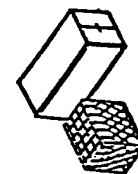
FIRST, USE THE C-5 TO MOVE MORE OUTSIZE CIVIL CARGO. BECAUSE NO CIVIL AIRCRAFT CAN CARRY ITEMS WHICH ARE BOTH OUTSIZE AND HEAVY, COMMERCIAL SHIPPERS OF SUCH ITEMS ARE LIMITED TO THE USE OF SURFACE TRANSPORTATION. THE SIZE OF THE C-5, TOGETHER WITH THE WEIGHT-BEARING CAPACITY OF ITS FLOOR, ENABLES IT TO CARRY MANY ITEMS OF MATERIAL WHICH ARE TOO LARGE OR TOO HEAVY TO BE CARRIED IN OTHER AIRCRAFT. THIS OPTION HAS MODERATE WARTIME UTILITY SINCE AERIAL PORT SPECIALISTS AND LOADMASTERS WOULD RECEIVE TRAINING BENEFITS WHEN PROCESSING THIS OUTSIZE CARGO. IN ORDER TO INACT THIS OPTION, TARIFFS WOULD NEED TO BE REDUCED FOR CIVIL OUTSIZE CARGO IN ORDER TO ATTRACT IT INTO THE SYSTEM. THE PRIMARY RESISTANCE TO THIS OPTION WOULD COME FROM THE SEALIFT COMMUNITY SINCE THE OUTSIZE CARGO WOULD BE DRAWN AWAY FROM THEM.

SECOND, ROTATE AND REPAIR UNIT EQUIPMENT PREPOSITIONED OVERSEAS. A SUBSTANTIAL AMOUNT OF CARGO IS PRE-POSITIONED OVERSEAS. USAF WAR RESERVE MATERIEL (WRM) IS PREPOSITIONED IN THE EUROPEAN, SOUTHWEST ASIAN, AND THE PACIFIC THEATERS. ARMY PREPOSITIONED OVERSEAS MATERIEL CONFIGURED FOR UNIT SETS (POMCUS) AND USAF WRM COULD BE RETURNED TO THE UNITED STATES FOR REPAIR OR MAINTENANCE AS IT BREAKS FROM USE DURING EXERCISES. ALTHOUGH SOME TRAINING BENEFIT WOULD BE DERIVED FROM CARRYING THE TYPE OF CARGO WE WOULD CARRY IN WARTIME, A SUBSTANTIAL AMOUNT OF TIME WOULD BE REQUIRED TO REESTABLISH THE NECESSARY OVERSEAS REPAIR FACILITIES THAT WOULD BE REQUIRED DURING WARTIME. ANOTHER EXTREMELY IMPORTANT CONSIDERATION IS IN THE AREA OF SERVICE TO THE CUSTOMER. THE PREPOSITIONED MATERIAL IS IN PLACE TO MEET THE IMMEDIATE NEEDS OF THE UNIFIED AND SPECIFIED COMMANDERS DURING WARTIME. IN ADDITION TO HAVING TO REESTABLISH THE MAINTENANCE FACILITIES, A CERTAIN AMOUNT OF THIS VITAL EQUIPMENT WOULD BE LOCATED OUT OF THE THEATER AT ANY GIVEN TIME. NOT ONLY WOULD THIS CREATE A SHORTAGE OF EQUIPMENT IN THEATER, IT WOULD ALSO CREATE AN OTHERWISE UNNECESSARY WARTIME MOVEMENT REQUIREMENT FOR AIRLIFT AIRCRAFT.

THIRD, ASSUME TRANS-CONTINENTAL LOGAIR MISSIONS. THE AIR FORCE OPERATES LOGAIR IN THE CONUS TO TRANSPORT CARGO BETWEEN MAJOR FACILITIES. CIVIL AIRLINES FLY THIS AIRLIFT UNDER CONTRACTS LET BY MAC. LOGAIR IS FINANCED WITH O & M FUNDS RATHER THAN THROUGH THE ASIF. THE AIR FORCE LOGISTICS COMMAND HAS OPERATIONAL CONTROL AND FUNDING RESPONSIBILITY FOR LOGAIR, WHICH PROVIDES SCHEDULED SERVICE BETWEEN AIR LOGISTICS CENTERS, AIR FORCE BASES, AND MAC AERIAL PORTS IN THE CONUS. IN TERMS OF WARTIME UTILITY, A MODERATE DEGRADATION WOULD RESULT SINCE LOGAIR WOULD HAVE TO BE RECONNECTED DURING A WAR AS MAC AIRLIFT AIRCRAFT WOULD BE NEEDED FOR HIGHER PRIORITY WARTIME CARGO. CONTRACT AIR CARRIERS WOULD STRONGLY OBJECT TO THIS ALTERNATIVE SINCE IT WOULD SIGNIFICANTLY REDUCE THEIR REVENUE.

# INCREASE THE USE OF MAC AIRLIFT BY CHANGING POLICIES OR PROCEDURES

OPTION	CRITERIA			IMPACT ON COMPETITORS		SERVICE TO CUSTOMER	
	WARTIME UTILITY	DOD SAVINGS	USAF O&M SAVINGS				
AIRLIFT HARD LIFT HHG	○	○	○	●		○	
CONVERT LOSING CHANNELS		○				●	
OFFER TARIFF INCENTIVES				●		○	
WORK DOD LIFT THROUGH MAC		○		●		●	
CARRY MORE PASSENGERS		○	○	●		●	
MOVE MORE DOD MAIL BY MAC		○		●		●	



## LEGEND

SIGNIFICANTLY IMPROVES	MODERATELY IMPROVES	(BLANK) NEGLIGIBLE IMPACT	MODERATELY DEGRADES	SIGNIFICANTLY DEGRADES
○	○		●	●

Slide 18: "Increase the Use of MAC Airlift by Changing Policies or Procedures"

FINALLY, WE IDENTIFIED SIX ALTERNATIVES TO INCREASE USE OF MAC AIRLIFT THAT WOULD REQUIRE CHANGES IN SPECIFIC POLICIES OR PROCEDURES WHICH CURRENTLY RESTRICT CERTAIN TYPES OF CARGO FROM BEING ROUTINELY TRANSPORTED BY MAC.

FIRST, INCREASE THE MOVEMENT OF HOUSEHOLD GOODS (HHG) BY AIR. CARRYING HHG TO SELECTED LOCATIONS IN PEACETIME COULD PROVIDE SOME TRAINING VALUE FOR THE AIRLIFT SYSTEM WITHOUT CREATING A WARTIME DEPENDENCY. AIRLIFT CAN DELIVER HHG TO REMOTE LOCATIONS FASTER THAN SEALIFT. THIS WOULD SAVE DOD MONEY BY REDUCING TEMPORARY LIVING ALLOWANCES AS WELL AS AVOIDING THE COST CURRENTLY PAID FOR SHIPPING HHG BY COMMERCIAL SEALIFT. INCREASED ASIF REVENUE WOULD ALSO REDUCE AIR FORCE O & M COSTS. THE CUSTOMER WOULD SEE THIS AS AN IMPROVEMENT IN SERVICE SINCE HE HAS A STRONG INTEREST IN THE TIMELINESS OF SHIPMENT. HOWEVER, THIS WOULD TAKE REVENUE AWAY FROM THE ALREADY AILING COMMERCIAL SEALIFT INDUSTRY.

SECOND, MAC COULD CONVERT ITS LOSING FREQUENCY CHANNEL MISSIONS TO REQUIREMENTS CHANNEL MISSIONS. THE MAC STUDY, CHANNEL AIRLIFT CRITERIA, IDENTIFIED 230 CHANNELS THAT COLLECTIVELY LOSE \$47 MILLION PER YEAR. MAC COULD REDUCE THE FREQUENCY OF SERVICE ON SOME COSTLY CHANNELS AND FLY WHEN THE USER HAS SUFFICIENT CARGO TO MAKE THE RUN COVER OPERATING EXPENSES. OVERALL DOD TRANSPORTATION COSTS WOULD BE LOWER DUE TO MORE EFFICIENT USE OF BY-PRODUCT CAPACITY, BUT CUSTOMERS WOULD PERCEIVE THIS AS A DEGRADATION TO THEIR SERVICE. TARIFF RATES COULD BE LOWERED AND MORE CARGO MIGHT BE ATTRACTED. OTHER ALTERNATIVES MIGHT ALSO NEED TO BE IMPLEMENTED TO ABSORB INCREASES IN BY-PRODUCT CAPACITY PRODUCED FROM ELIMINATION OF SOME OF THESE CHANNELS.

THIRD, MAC COULD OFFER TARIFF INCENTIVES TO DRAW SELECTED TYPES OF CARGO TO INCLUDE SUCH MORALE-RELATED ITEMS SUCH AS HOUSEHOLD GOODS AND COMMISSARY ITEMS. THIS WOULD BE AN INCENTIVE FOR SHIPPERS TO USE AIRLIFT INSTEAD OF SEALIFT. ALTHOUGH THE CUSTOMER WOULD PERCEIVE THIS AS AN INCREASE IN SERVICE SINCE A FASTER MODE OF TRANSPORTATION WOULD BE AVAILABLE AT A LOWER COST, THE SEALIFT COMMUNITY WOULD RESIST THIS CHANGE.

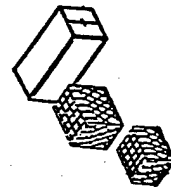
FOURTH, WORK DOD AIRLIFT THROUGH MAC. CURRENTLY, DOD DOES NOT REQUIRE THE SERVICES TO PROCESS THEIR INTERNATIONAL TRAFFIC REQUESTS THROUGH MAC, THUS ALLOWING SOME OF THIS TRAFFIC TO LEAVE THE DEFENSE TRANSPORTATION SYSTEM. BY REQUIRING INTERNATIONAL DOD CARGO TO BE PROCESSED THROUGH MAC, DOD TRANSPORTATION COSTS WOULD BE REDUCED BY THE AMOUNT OF COMMERCIAL LIFT AVOIDED, AND THE BY-PRODUCT CAPACITY WOULD BE MORE PRODUCTIVELY UTILIZED. CUSTOMERS WOULD PERCEIVE THIS AS CONSTRAINING THEIR FLEXIBILITY AND COMPETITORS WOULD LOSE CARGO AND REVENUE.

FIFTH, CARRY MORE PASSENGERS ON MAC'S INTERNATIONAL FLIGHTS. DOD POLICY IS TO USE CIVIL AIRCRAFT TO MOVE NEARLY ALL DOD PASSENGER TRAFFIC. OVER 90 PERCENT OF THESE PASSENGERS TRAVEL ON COMMERCIAL AIRCRAFT. THE PROJECTED COST OF DOD INTERNATIONAL TRAFFIC FOR FY 85 IS \$310 MILLION. A CHANGE IN DOD POLICY COULD INCREASE THE AMOUNT OF PASSENGERS CARRIED ON MAC INTERNATIONAL FLIGHTS. ALTHOUGH DOD WOULD SAVE MONEY, AND AIR FORCE O & M COSTS WOULD BE REDUCED BY INCREASED ASIF REVENUE, THE COMMERCIAL AIRLINE INDUSTRY WOULD LOSE A SUBSTANTIAL AMOUNT OF REVENUE, AND THIS COULD ADVERSELY AFFECT COMMERCIAL PARTICIPATION IN THE CIVIL RESERVE AIR FLEET. ALSO, THE CUSTOMER WOULD PERCEIVE THIS AS A SIGNIFICANT DEGRADATION IN SERVICE.

FINALLY, MOVE MORE DOD MAIL BY MAC. NEARLY ALL DOD MAIL TO AND FROM FOREIGN COUNTRIES IS MOVED BY COMMERCIAL AIRLINES AT AN ANNUAL COST OF APPROXIMATELY \$100 MILLION PER YEAR. MAC AIRCRAFT PROVIDE MAIL SERVICE TO ISOLATED AREAS AND CARRIES THE OVERFLOW FROM CIVIL CARRIERS DURING THE CHRISTMAS PERIOD EACH YEAR. MAC HAS ALSO BEEN USED DURING AIRLINE STRIKES. ALTHOUGH DOD WOULD SAVE MONEY BY USING BY-PRODUCT CAPACITY FOR MOVING INTERNATIONAL MAIL, THE COMMERCIAL AIRLINE INDUSTRY WOULD LOSE REVENUE AND THE CUSTOMER WOULD PERCEIVE THIS AS A DEGRADATION IN SERVICE DUE TO DECREASED FREQUENCY OF DELIVERY.

# EFFECT OF ALTERNATIVES ON OPERATIONS

CRITERIA		IMPACT ON COMPETITORS					SERVICE TO CUSTOMER
OPTION	WARTIME UTILITY	DOD SAVINGS	USAF O&M SAVINGS	IMPACT ON COMPETITORS	SERVICE TO CUSTOMER		
INCREASE JCS EXERCISES	○	●		○	○		
AIRLIFT HARD LIFT HHG	○	○	○	●	○		
CONVERT LOSING CHANNELS		○			●		
OFFER TARIFF INCENTIVES				●	○		
USE C-5 FOR CIVIL OUTSIZE	○			●	○		
REDUCE CARGO BUY	●	○	○	●			
WORK DOD LIFT THROUGH MAC		○		●	●		
CARRY MORE PASSENGERS		○	○	●	●		
MOVE MORE DOD MAIL BY MAC		○		●	●		
ROTATE & REPAIR UNIT EQUIP	●				●		
ASSUME LOGAIR MISSIONS	●			●			
ENCOURAGE ALOC PROGRAMS	●	●		●			



EFFECT OF CHANGE

SIGNIFICANTLY IMPROVES	(BLANK)	Moderately Improves	Moderately Degrades	Significantly Degrades
○		○	●	●

Slide 19: "Effect of Alternatives"

THIS SUMMARIZES THE 12 ALTERNATIVE USES OF BY-PRODUCT CAPACITY MEASURED AGAINST THE FIVE SPECIFIC CRITERIA BY USING A QUALITATIVE SPREADSHEET. EACH OF THE 12 ALTERNATIVES WOULD PRODUCTIVELY USE MAC'S BY-PRODUCT AIRLIFT CAPACITY WITH VARYING IMPACTS ON READINESS, COST SAVINGS, COMPETITORS, AND THE CUSTOMER.

THE ALTERNATIVES ARE LISTED IN THE ORDER WE WOULD RECOMMEND THEM. HIGHLIGHTS ARE:

- INCREASING JCS EXERCISES HAS THE LEAST NEGATIVE IMPACT OF THE ALTERNATIVES.
- AIRLIFTING HOUSEHOLD GOODS TO HARD LIFT AREAS IS THE NEXT BEST CHOICE.
- LOSING FREQUENCY CHANNELS MIGHT BE CLOSELY REVIEWED TO SEE IF ANY OF THEM COULD BE CONVERTED TO REQUIREMENTS CHANNELS. THIS REVIEW WOULD ALSO HAVE TO CONSIDER THE OPERATIONAL REASONS AND THE TRAINING VALUE OBTAINED FROM THE CURRENTLY ESTABLISHED FREQUENCY CHANNEL STRUCTURE.
- INCENTIVE TARIFFS ARE CURRENTLY BEING STUDIED BY A JOINT INCENTIVE TARIFF WORKING GROUP.
- NINE OF THE 12 ALTERNATIVES WOULD DRAW CARGO AND REVENUE AWAY FROM COMPETITORS.
- TEN OF THE 12 ALTERNATIVES INVOLVE NO INCREASE IN DOD COSTS.

## **KEY OBSERVATIONS**

- THE AIRLIFT READINESS TRAINING PROGRAM IS AN EVENT-ORIENTED PEACETIME REQUIREMENT
- USER REQUIREMENTS ARE NOT CONSIDERED IN DETERMINING THE REQUIRED NUMBER OF FLYING HOURS
- THE ASIF PROVIDES A VIABLE ALLOCATION MECHANISM FOR THE DEFENSE TRANSPORTATION SYSTEM
- CONSIDERATION SHOULD BE GIVEN TO THE FOLLOWING USES OF BY-PRODUCT CAPACITY:
  - INCREASED MAC AIRLIFT SUPPORT OF JCS EXERCISES
  - AIRLIFT OF HOUSEHOLD GOODS INTO HARD LIFT AREAS
  - CONVERSION OF LOSING FREQUENCY CHANNEL MISSIONS TO REQUIREMENTS CHANNEL MISSIONS
  - OFFERING TARIFF INCENTIVES TO ATTRACT SELECTED CARGO INTO SPECIFIC CHANNELS OF OPERATION

Slide 20: "Key Observations"

BASED ON OUR ANALYSIS OF THE VARIOUS ISSUES RELATED TO THE AIRLIFT READINESS TRAINING PROGRAM AND ITS RESULTANT BY-PRODUCT CARGO CAPACITY, WE MADE FOUR KEY OBSERVATIONS:

- 1) AIRLIFT READINESS TRAINING PROGRAM CAN BE DEFENDED AS AN EVENT-ORIENTED PROGRAM. THE AIRLIFT READINESS TRAINING PROGRAM IS DERIVED SPECIFICALLY FROM A LIST OF TRAINING EVENTS REQUIRED TO PREPARE THE AIRLIFT SYSTEM TO MEET ITS WARTIME MISSION.
- 2) USER REQUIREMENTS ARE NOT CONSIDERED IN DETERMINING THE REQUIRED NUMBER OF FLYING HOURS. AFTER THE MINIMUM NUMBER OF FLYING HOURS ARE DETERMINED BY MAC, VALIDATED BY THE AIR STAFF AND APPROVED BY CONGRESS, THEY ARE ALLOCATED AMONG THE USERS TO MEET THEIR PEACETIME TRANSPORTATION REQUIREMENTS.
- 3) THE ASIF PROVIDES A VIABLE ALLOCATION MECHANISM FOR THE DEFENSE TRANSPORTATION SYSTEM. ALTHOUGH THERE ARE SEVERAL PERCEIVED ADVANTAGES AND DISADVANTAGES OF THE ASIF, BASED ON THE INFORMATION WE REVIEWED DURING THE COURSE OF THIS STUDY, THE ASIF IS MEETING ITS OBJECTIVES AS ESTABLISHED BY CONGRESS.
- 4) CONSIDERATION SHOULD BE GIVEN TO THE FOLLOWING USES OF BY-PRODUCT CAPACITY:

A) INCREASE THE AMOUNT OF MAC AIRLIFT FOR JCS EXERCISES. THE THEATER CINCS BELIEVE A REAL NEED EXISTS FOR THIS KIND OF AIRLIFT SINCE THIS WOULD MORE CLOSELY ALIGN MAC'S PEACETIME READINESS TRAINING WITH ITS WARTIME MISSION. THE AIRLIFT READINESS SYSTEM WOULD BENEFIT FROM THIS KIND OF ACTIVITY, SINCE IT USES THE AIRLIFT SYSTEM IN A MODE SIMILAR TO THE WAY IT WILL BE USED IN WARTIME.

B) AIRLIFT HOUSEHOLD GOODS TO HARD LIFT AREAS. THIS OPTION DOES NOT CREATE A WARTIME DEPENDENCY AND IT IS GENERALLY LIKED BY EVERYONE EXCEPT FOR THE SEALIFT COMMUNITY.

C) CONVERT LOSING FREQUENCY CHANNELS TO REQUIREMENTS CHANNELS. LESS PROFITABLE CHANNELS ARE CURRENTLY HAVING TO BE SUBSIDIZED BY OTHER CHANNELS TO MAINTAIN THE BREAK-EVEN CONCEPT OF THE ASIF. THIS MEANS TARIFF RATES MUST ALSO BE HIGHER. IF SOME OF THE FREQUENCY CHANNELS COULD BE CONVERTED TO REQUIREMENTS CHANNELS, TARIFF RATES COULD BE LOWERED AND MORE CARGO MIGHT BE ATTRACTED.

D) OFFER TARIFF INCENTIVES. CARGO EXISTS THAT CAN BE ATTRACTED INTO THE AIRLIFT SYSTEM IF THE PRICE IS RIGHT. WE BELIEVE HOUSEHOLD GOODS, COMMISSARY ITEMS, AND OTHER SELECTED CARGO WILL TRICKLE INTO THE SYSTEM IF THE TARIFF PROVIDES ENOUGH INCENTIVE AND THE FREQUENCY OF AIRLIFT SERVICE SATISFIES THE USER'S NEEDS.

BASED ON OUR ASSESSMENT, THERE IS NO SINGLE ALTERNATIVE THAT COULD BE IMPLEMENTED TO COMPLETELY ABSORB THE PROJECTED INCREASE IN BY-PRODUCT CAPACITY. HOWEVER, SOME BLEND OF THE ABOVE ALTERNATIVES WOULD PROBABLY PRESENT THE MOST LOGICAL SOLUTION TO THE PROBLEM.